

## ABSTRACT OF THE DISCLOSURE

A method of resolving photoelectron coupling that results from the operation of a staggered charge-coupled device inside a scanner. The staggered charge-coupled device at least includes an optical sensor group comprising of an optical sensor array and a neighboring optical sensor array for scanning pixels. The method includes the step of:  
5 recording the quantity of photoelectrons transferred between a first quantity of photoelectrons captured by the optical sensor array and a second quantity of photoelectrons captured by the neighboring optical sensor array during a scanning time interval  $t$ . Thereafter, the quantity of transferred photoelectrons is subtracted from the first quantity of  
10 photoelectrons captured by the optical sensor array to obtain the correct quantity of photoelectrons captured by the optical sensor array during the scanning time interval  $t$ . Using the corrected value, accurate brightness value of the pixels scanned by the optical sensor array is obtained.

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